## References

Balkcom, K.S., A.M. Blackmer, D.J. Hansen, T.F. Morris, and A.P. Mallarino. 2003. Testing Soils and Cornstalks to Evaluate Nitrogen Management on the Watershed Scale. *J. Environ. Qual.* 32:1015–1024.

Baker, D.G. 1972. Prediction of spring runoff. Water Resour. Res. 8:966-972.

Brenneman, G. undated. Manure Manager Series, Vol. 3. Iowa State University Extension. http://www.agronext.iastate.edu/immag/pubs/imms/vol3.pdf (Accessed 9-25-2013).

Bishop, P.L., W.D. Hively, J.R. Stedinger, M.R. Rafferty, J.L. Lojpersberger, and J.A. Bloomfield. 2005. Multivariate analysis of paired watershed data to evaluate agricultural best management practice effects on stream water phosphorus. *J. Environ. Qual.* 34:1087–1101.

Brown, M.B., P. Longabucco, M.R. Rafferty, P.D. Robillard, M.F. Walter, and D.A. Haith. 1989. Effects of animal waste control practices on nonpoint source phosphorus loading in the West Branch of the Delaware River watershed. *J. Soil Water Cons.* 44(1):67-70.

Carrington, E.G. and M.E. Ransome. 1994. Factors influencing the survival of *Cryptosporidium* oocysts in the environment. Report No. FR 0456. *Foundations for Water Research*. Marlow, Bucks.

Clark, K., M. Chantigny, D. Angers, P. Rochette, and L. Parent. 2009. Nitrogen transformations in cold and frozen agricultural soils following organic amendments. *Soil Biol. & Biochem*. 41:348-356.

Clausen, J.C. 1990. Winter and Fall application of manure to corn land. Pages 179 – 180 <u>in</u> Meals, D.W. 1990. <u>LaPlatte River Watershed Water Quality Monitoring and Analysis</u> <u>Program: Comprehensive Final Report. Program Report No. 12</u>. Vermont Water Resource Research Center, University of Vermont, Burlington.

Clausen, J.C. 1991. Best manure management effectiveness. Pages 193 – 197 <u>in Vermont RCWP</u> Coordinating Committee. 1991. <u>St. Albans Bay Rural Clean Water Program, Final Report.</u> Vermont Water Resources Research Center, University of Vermont, Burlington

Clausen, J.C. and D.W. Meals. 1989. Water quality achievable with agricultural best management practices. *J. Soil Water Cons.* 44(6):593-596.

Converse, J.C., G.D. Bubenzer, and W.H. Paulson. 1976. Nutrient losses in surface runoff from winter spread manure. *Trans. ASAE* 19:517-519.

Cookson, W., Conforth, I., and J. Rowath. 2002. Winter soil temperature (2 – 15 °C) effects on nitrogen transformations in clover green manure amended or unamended soils: a laboratory and field study. *Soil Biol. & Biochem.* 34(10):1401-1415.

Cooley, K.R. (ed.), 1990. Proceedings of an International Symposium Frozen Soil Impacts on Agricultural, Range, and Forest Lands. Special Report 90-1, U.S. Army Cold Regions Research and Engineering Laboratory, Hanover, NH.

Dessaureault-Rompre, J., B. Zebarth, A. Georgallas, D. Burton, C. Grant, and C. Drury. 2010. Temperature dependence of soil nitrogen mineralization rate: comparison of mathematical models, reference temperature, and origin of the soils. *Geoderma* 157:97-108.

Dunne, T. 1983. Relation of field studies and modeling in the prediction of storm runoff. *J. Hydrol.* 65:25-48.

Fallow, D.J., D.M. Brown, J.D. Lauzon, and G.W. Parkin. 2007. Risk assessment of unsuitable winter conditions for manure and nutrient application across Ontario. *J. Environ. Qual.* 36:31–43

Fayer, R. and T. Nerad. 1996. Effects of low temperature on viability of *Cryptosporidium* parvum oocysts. *Appl. and Environ. Microbiol.* 62(4):1431-1433

Fleming, R. and H. Fraser. 2000. Impacts of Winter Spreading of Manure on Water Quality - Literature Review. University of Guelph, Report prepared for Ontario Pork, Etobicoke, ON, Canada.

Gerba, D., C. Wallis, and J. Mellnick. 1975. Fate of wastewater bacteria and viruses in soil. *J. Irr. Drain. Div. ASCE* 101:157-174.

Gessel, P. D., N. C. Hansen, J. F. Moncrief, and M. A. Schmitt. 2004. Rate of fall-applied liquid swine manure: effects on runoff transport of sediment and phosphorus. *J. Environ. Qual.* 33:1839-1844.

Gilley, J.E., L.M. Risse, and B. Eghball. 2002. Managing runoff after manure application. *J. Soil Water Cons.* 57(6)530-533.

Hansen, N.C., S.C. Gupta, and J.F. Moncrief. 2000. Snowmelt runoff, sediment, and phosphorus losses under three different tillage systems. *Soil Tillage Res.* 57:93–100

Hensler, R.F., R.J. Olsen, S.A. Witzel, O.J. Attoe, W.H. Paulson, and R.F. Johannes. 1970. Effect of method of manure handling on crop yields, nutrient recovery and runoff losses. *Trans. ASAE*:726-731.

Hernandez, J.A. and M.A. Schmitt. 2012. Manure Management in Minnesota. University of Minnesota Extension. <a href="http://www.extension.umn.edu/distribution/cropsystems/DC3553.html">http://www.extension.umn.edu/distribution/cropsystems/DC3553.html</a> (Accessed 9-25-2013).

Jann, S.M. 2005. Interim Final Technical Guidance for the Application of CAFO Manure on Land in the Winter. United States Environmental Protection Agency, Region 5, Chicago, IL <a href="http://www.cals.ncsu.edu/waste\_mgt/natlcenter/sanantonio/Jann.pdf">http://www.cals.ncsu.edu/waste\_mgt/natlcenter/sanantonio/Jann.pdf</a> (Accessed 9-24-2013).

Jayasundara. S., C. Wagner-Riddle, G. Parkin, J. Lauzon, and M. Fan. 2010. Transformations and losses of swine manure <sup>15</sup>N as affected by application timing at two contrasting sites. *Can. J. Soil Sci.* 90:55-73.

Kibby, H.J., C. Hagedorn, and E.L. McCoy. 1978. Use of Fecal Streptococci as indicators of pollution in soil. *Appl. and Environ. Microbiol.* 35(4):711-717.

Klausner, S.D., Zwerman, P.J., and Ellis, D.F. 1976. Nitrogen and phosphorus losses from winter disposal of manure. *J. Environ. Qual.* 5(1):47-49

Komiskey, M.J., T.D. Stuntebeck, D.R. Frame, and F.W. Madison. 2011. Nutrients and sediment in frozen-ground runoff from no-till fields receiving liquid-dairy and solid-beef manures. *J. Soil Water Cons.* 66(5):303-312.

Kongoli, C.E. and W.L. Bland. 2002. Influence of manure application on surface energy and snow cover. *J. Environ. Qual.* 31:1166–1173.

Kongoli, C.E. and W.L. Bland. 2002a. Influence of manure application on surface energy and snow cover: Field experiments. *J. Environ. Qual.* 31:1166-1173.

Kowalenko, C.G., O. Schmidt, and G. Hughes-Games. 2007. Fraser Valley soil nutrient study 2005, a survey of the nitrogen phosphorus and potassium contents of Lower Fraser Valley agricultural soils in relation to environment and agronomic concerns, British Columbia Agriculture Council, 47 pg.

Kudva, I.T., K. Blanch, and C.J. Hovde. 1998. Analysis of *Escherichia coli* O157:H7 in ovine or bovine manure and manure slurry. *Appl. and Environ. Microbiol.* 64(9):3166-3174.

Lauer, D.A., D.R. Bouldin, and S.D. Klausner. 1976. Ammonia volatilization from dairy manure spread on the soil surface. *J. Environ. Qual.* 5:134-141.

Lemunyon, J.L., and R.G. Gilbert. 1993. The concept and need for a phosphorus assessment tool. *J. Prod. Agric*. 6:483-486.

Lewis, T.W. and J.C. Makarewicz. 2009. Winter application of manure on an agricultural watershed and its impact on downstream nutrient fluxes. *J. Grt. Lakes Res.* 35(sp1):43-49.

Little, J.L., S.C. Nolan, J.P. Casson, and B.M. Olson. 2007. Relationships between Soil and Runoff Phosphorus in Small Alberta Watersheds. *J. Environ. Qual.* 36:1289–1300.

Lorimer, J.C. 1999. Minimizing risk when applying manure in winter. Iowa State University Extension, Ames, IA.

http://www.extension.iastate.edu/Pages/communications/EPC/F99/winter.html

Lorimor, J.C. and J.C Melvin.. 1996. Nitrogen losses in surface runoff from winter-applied manure. University of Iowa. Final Report.

Madison, F., K. Kelling, L. Massie, and L.W. Good. 2003. *Guidelines for applying manure to cropland and pasture in Wisconsin*. University of Wisconsin Extension. http://learningstore.uwex.edu/assets/pdfs/A3392.pdf (Accessed 9-25-2013).

Marsh, P. 1999. Snowcover formation and melt: recent advances and future prospects. *Hydrol. Proc.* 13:2117-2134.

Maulé, C. and J. Elliott. 2005a. Effect of Hog Manure Injection Upon Soil Productivity and Water Quality; Part I Perdue Site, 1998-2004. ADF Project 98000094. Dept of Agricultural and Bioresource Engineering, University of Saskatchewan, 57 Campus Drive, Saskatoon, SK.

McCool, D.K. 1990. Crop management effects on runoff and soil loss from thawing soil. Pp. 171-176 *In:* Frozen soil impacts on agricultural, range, and forest lands. K.R. Cooley (ed.) Proceedings of International Symposium, Spokane, Washington. CRREL Special Report 90-1. Cold Regions Research and Engineering Laboratory.U.S. Army Corps of Engineers, Hanover, NH.

Melvin, S. and J. Lorimor. 1996. Effects of winter manure spreading on surface water quality. 1996 Research Report, Agricultural & Biosystems Engineering, Iowa State University Extension, Ames, IA. (http://www.nppc.org/Research/\\_96Reports/\\_96Melvin-manure.html)

Michigan Commission of Agriculture & Rural Development. 2013. Generally Accepted Agricultural and Management Practives for Manure Management and Utilization. Lansing, MI http://www.michigan.gov/documents/mdard/2013\_FINAL\_MANURE\_GAAMP\_409764\_7.pdf

Midgeley, A.R. and D.E. Dunklee. 1945. Fertility runoff losses from manure spread during the winter. Univ. of Vermont, Agric. Exp. Station, Bulletin 523, 19 p.

Molnau, M. and J.G. Cherry. 1990. A comparison of runoff occurring on frozen and unfrozen soils. Pp. 279-281 *In:* Frozen soil impacts on agricultural, range, and forest lands. K.R. Cooley (ed.) Proceedings of International Symposium, Spokane, Washington. CRREL Special Report 90-1. Cold Regions Research and Engineering Laboratory.U.S. Army Corps of Engineers, Hanover, NH.

Moore, I.C. and F.W. Madison. 1985. Description and application of an animal waste phosphorous loading model. *J. Environ. Qual.* 14(3):364-368.

Nolan, S., L. Good, P. Loro, J. Elliot, T. Wallace, and B. Olson. Undated. Best Management Practices for Snowmelt Runoff. Alberta Agriculture and Rural Development. Edmonton, AB.

Ohio State University. 2011. *Properly Applying Manure on Frozen Ground*. OSU Crop Observation and Recommendation Network (C.O.R.N.) Newsletter 2011-42 <a href="http://corn.osu.edu/newsletters/2011/2011-42/properly-applying-manure-on-frozen-ground">http://corn.osu.edu/newsletters/2011/2011-42/properly-applying-manure-on-frozen-ground</a> (Accessed 9-25-2013).

Ontario Ministry of Agriculture and Food. 2011. Winter Application of Manure and Other Agricultural Source Materials. OMAFRA Fact Sheet 10-073. http://www.omafra.gov.on.ca/english/engineer/facts/10-073.htm#5 (Accessed 9-25-2013).

Owens, L.B., J.V. Bonta, M.J. Sipitalo, and S. Rogers. 2011. Effects of winter manure application in Ohio on the quality of surface runoff. *J. Environ. Qual.* 40:153–165.

Pappas, E.A., R.S. Kanwar, J.L. Baker, J.C. Lorimor, and S. Mickelson. 2008. Fecal indicator bacteria in subsurface drain water following swine manure application. *Trans. ASABE* 51:1567–1573.

Patni, N.K., H.R. Toxopeus, and P.Y. Jui. 1985. Bacterial quality of runoff from manured and non-manured cropland. *Trans. ASAE* 28():1871-1884.

Phillips, P.A., A.J. MacLean, F.R. Hore, F.J. Sowden, A.D. Tenant, and N.K. Patni. 1975. Soil water and crop effects of selected rates and times of dairy cattle liquid manure applications under continuous corn. Engineering Research Service Contribution No. 540. Agriculture Canada, Ottawa, Ontario.

Philips, P.A., Culley, J.L.B., Hore, F.R., and Patni, N.K. 1981. Pollution potential and corn yields from selected rates and timing of liquid manure applications. *Trans. ASAE*. 1981: 139-144

Pikul, J.L., Jr., J.F. Zuzel, and D.E. Wilkins. 1992. Infiltration into frozen soil as affected by ripping. *Trans. ASAE*. 35:83-90.

Pikul, J.L., Jr., D.E. Wilkins, J.K. Aase, and J.F. Zuzel. 1996. Contour ripping: A tillage strategy to improve water infiltration into frozen soil. *J. Soil Water Cons.* 51:76-83.

Pionke, H.B., W.J. Gburek, R.R. Schnabel, A.N. Sharpley, and G.F. Elwinger. 1999. Seasonal flow, nutrient concentrations and loading patterns in stream flow draining an agricultural hill-land watershed. *J. Hydrol*.220:62-73.

Reddy, K.R., R. Khaleel, and M.R. Overcash. 1981. Behavior and transport of microbial pathogens and indicator organisms in soils treated with organic wastes. *J. Environ. Qual.* 10(3):255-266.

Ricker, D.H. and J.D. Smolik. 1990. Tillage and crop residue effects on soil frost depth. Pages 31-35 IN Proceedings of an International Symposium Frozen Soil Impacts on Agricultural, Range, and Forest Lands. Cooley, K.R. (ed.), Special Report 90-1, U.S. Army Cold Regions Research and Engineering Laboratory, Hanover, NH.

Scharf, P. 2013.

Schillinger, W.F., and D.E. Wilkins. 1997. Deep ripping fall-planted wheat after fallow to improve infiltration and reduce erosion. *J. Soil. Water Cons.* 52:198-202.

Sharpley, A.N. and P. Kleinman. Effect of rainfall simulator and plot scale on overland flow and phosphorus transport. *J. Environ. Qual.* 32(6):2172-2179.

Srinivasan, M.S., R.B. Bryant, M.P. Callahan, and J.L. Weld. 2006. Manure management and nutrient loss under winter conditions: A literature review. *J. Soil Water Cons.* 61(4):200-209.

Steenhuis, T.S., G.D. Bubenzer, and J.S. Converse. 1979. Ammonia volatilization of winter spread manure. *Trans. ASAE* 22: 153-157.

Steenhuis, T.S., G.D. Bubenzer, J.C. Converse, and M.F. Walter. 1981. Winter-spread Manure Nitrogen loss. *Trans. ASAE* 24(2):436-441

Stoddard, C.S., M.S. Coyne, and J.H. Grove. 1998. Fecal bacteria survival and infiltration through a shallow agricultural soil: timing and tillage effects. *J. Environ. Qual.* 27:1516-1523.

Storey, H.C. 1955. Frozen soil and spring and winter floods. Pp. 179-185. *In:* The Yearbook of Agriculture. U.S. Government Printing Office, Washington, D.C.

Stuntebeck, T.D., M.J. Komiskey, M.C. Peppler, D.W. Owens, and D.R. Frame. 2011. Precipitation-runoff relations and water-quality characteristics at edge-of-field stations, Discovery Farms and Pioneer Farm, Wisconsin, 2003–8: U.S. Geological Survey Scientific Investigations Report 2011–5008, 46 p.

Thompson, D.B., T.L. Loudon, and J.B. Gerrish. 1979. Animal manure movement in winter runoff for different surface conditions. Pages 145-157 <u>in</u> R.C. Loehr et al., eds. <u>Best Management Practices for Silviculture and Agriculture.</u> Ann Arbor Science, Ann Arbor, MI.

Ulen, B. 2003. Concentrations and transport of different forms of phosphorus during snowmelt runoff from an illite clay soil. *Hydrol. Proc.* 17:747-758.

USDA-NRCS. 2012. Nutrient Management Practice Standard (590). NHCP, January, 2012. <a href="http://www.nrcs.usda.gov/Internet/FSE\_DOCUMENTS/stelprdb1046896.pdf">http://www.nrcs.usda.gov/Internet/FSE\_DOCUMENTS/stelprdb1046896.pdf</a> (accessed 10-22-2014).

U.S. EPA. 2012. NPDES Permit Writers' Manual for Concentrated Animal Feeding Operations. EPA 833-F-12-001. U.S. Environmental Protection Agency, Office of Water. Washington, DC.

Vansteelant, JY. 2000. Personal communication, Institut National de la Recherche Agronimique, Thonon les Bains, France.

Williams, M.R., G.W. Feryereisen, D.B. Beegle, and R.D. Shannon. 2012a. Soil temperature regulates phosphorus loss from lysimeters following fall and winter manure application. *Trans. ASABE* 55(3):871-880.

Williams, M.R., G.W. Feryereisen, D.B. Beegle, and R.D. Shannon. 2012b. Soil temperature regulates nitrogen loss from lysimeters following fall and winter manure application. *Trans. ASABE* 55(3):861-870.

Willis, W.O., C.W. Carlson, J. Alessi, and H.H. Haas. 1961. Depth of freezing and spring runoff as related to fall soil-moisture level. *Can. J. Soil Sci.* 41:115-123.

Young, R.A. and C.K. Mutchler. 1976. Pollution potential of manure spread on frozen ground. *J. Environ. Qual.* 5(2):174-179

Young, R.A. and R.F. Holt. 1977. Winter-applied manure: effects on annual runoff, erosion, and nutrient movement. *J. Soil Water Cons.* 32(5):219-222.

Zuzel, J.F., R.R. Allmaras, and R. Greenwalt. 1982. Runoff and soil erosion on frozen soils in northeastern Oregon. *J. Soil Water Cons.* 37(6):351-354.

Zuzel. J.F. and J.L. Pikul. 1987. Infiltration into a seasonally frozen agricultural soil. *J. Soil Water Cons.* 42(6):447-450.

